



# Marine Corps Base Camp Pendleton

## ~ 2005 Consumer Confidence Report ~

This report provides information on the quality of the water provided to residents and personnel who live and work aboard Camp Pendleton. Included are details about where your water comes from, what it contains, and how it compares to established drinking water standards.

*Este informe contiene informacion muy importante sobre su agua potable. Traduzcalo o hable con alguien que lo entienda bien.*

### Camp Pendleton's Drinking Water

With the exception of San Mateo Point housing, which receives water from the South Coast Water District (SCWD), Camp Pendleton provides water service to all areas of the Base through one of the following two water systems. Both of these water systems obtain water from underground aquifers or basins located on Camp Pendleton, and the water in both systems is disinfected prior to distribution to Base water consumers. (Note: San Mateo Point housing residents should receive a Consumer Confidence Report from the SCWD.)

#### Northern Water System

- Service Area: San Onofre Housing and Mobile Home areas, San Onofre Recreation Beach, and the 51-64 Areas of Camp Pendleton.
- Water Source: groundwater from wells located in the San Onofre and San Mateo River basins.

#### Southern Water System

- Service Area: all areas not serviced by the Base's northern water system or by the SCWD.
- Water Source: groundwater from wells located in the Las Pulgas and Santa Margarita River basins.
- Presently, water from wells in the Santa Margarita River groundwater basin is processed through one of two iron and manganese removal facilities to reduce the concentration of these naturally-occurring substances from the source water.

For questions or additional information regarding this report, please contact the Facilities Maintenance Department, Water Superintendent at (760) 725-0602.

### Water Quality Monitoring

Camp Pendleton conducts water quality monitoring in both water systems to comply with California

Department of Health Services (California DHS) requirements. In addition to monitoring for contaminants with established regulatory standards, the Base also monitors for *unregulated contaminants*, which helps the United States Environmental Protection Agency (USEPA) and the California DHS determine where certain contaminants occur and whether such contaminants need to be regulated.

Last year, Camp Pendleton conducted over 17,000 water quality tests to evaluate compliance with regulatory requirements. Out of the 200 water quality parameters examined, 34 were detected at or above what the state allows, and only six registered, on occasion, over a drinking water quality standard, regulatory action or notification level as follows:

#### Northern Water System

- Six samples exceeded the regulatory action level for copper. These are attributed to the corrosion of copper plumbing in buildings and residences.

#### Southern Water System

- On 9 September 2005, 11 samples exceeded the regulatory action level for lead. These are attributed to internal corrosion of some household water plumbing systems.
- 11 samples exceeded the secondary drinking water standard for manganese. These are attributed to naturally occurring characteristics of the source water as well as the accumulation of deposits in the water mains. They are not associated with any known health risks, although they may impact the aesthetic quality of the water.
- Three samples from one well exceeded the notification level for 1,2,3-trichloropropane. The Department of the Navy is currently investigating the potential source of this unregulated contaminant.

## 2005 CONSUMER CONFIDENCE REPORT

ASSISTANT CHIEF OF STAFF  
ENVIRONMENTAL SECURITY  
P.O. BOX 555008  
CAMP PENDLETON, CA 92055-5008

PRSRT STD  
U.S. POSTAGE  
**PAID**  
PERMIT #236  
92054

Drinking Water Source Assessment

The California DHS conducted an assessment of the Base’s drinking water sources during July 2002. The assessment determined that wells in both water systems are most vulnerable to activities commonly associated with *military installations*; however no contaminants related to this assessment category have been detected in the water supply. The assessment also determined that some wells in Camp Pendleton’s southern water system are most vulnerable to activities commonly associated with:

- *Chemical/petroleum processing/storage and historic waste dumps/landfills* based on contaminant detections in the groundwater source prior to July 2002.
- *Airport maintenance/fueling areas and landfills/dumps*, however no contaminants related to these assessment categories have been detected in the groundwater source.

You may request a summary of this assessment by contacting the AC/S Environmental Security Drinking Water Branch at 725-9741. A copy of the complete assessment is also available for viewing at: AC/S Environmental Security, Building 22165, Marine Corps Base, Camp Pendleton, CA 922055-5008.

Compliance Standing

No regulatory enforcement actions for Camp Pendleton’s drinking water system were received during 2005.

Water System Advisories

As indicated in the table provided in this report, sampling results in both water systems occasionally exceed an established drinking water quality standard. The following water system advisories currently apply:

Northern Water System: In Spring 2005, Camp Pendleton mailed a notice to residents served by the Base’s northern water system regarding the potential presence of **copper** in the drinking water of certain residences. This notice informed residents of initiatives to address this issue and measures residents can take to improve water palatability. It also provided the following potential health effects information:

*Copper is an essential nutrient, but some people who drink water containing copper in excess of the*

*action level over a relatively short amount of time may experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years may suffer liver or kidney damage. People with Wilson’s Disease should consult their personal doctor.*

Copies of the complete advisory are available at the Base Housing Office, Bldg. 1138.

Southern Water System: Camp Pendleton’s Housing Office provides a standing notice to all new residents served by the Base’s southern water system regarding the possible occurrence of **manganese** in the drinking water. Manganese is a common mineral that is often present in groundwater due to naturally- occurring geologic formations or deposits. Raw water pumped from wells in the Santa Margarita River basin generally contains manganese at levels that exceed standards established to promote the aesthetic quality of the water. Copies of the complete advisory are available at the Base Housing Office, Bldg. 1138.

In September 2005, Camp Pendleton exceeded the regulatory action level for **lead** in the southern drinking water system which requires a Lead Public Education Program and installation of corrosion control treatment (CCT). The Base worked with the Department of Health Services to identify the best treatment technique available to resolve the issue and received concurrence on our strategy in a CCT designation letter dated 12 December 2005. The Base has 24 months from the date of the designation to have CCT installed; however, CCT installation is scheduled to be complete by mid December 2006, a year ahead of schedule. The following provides the potential health effects of lead:

*Infants and children who drink water containing lead in excess of the action level may experience delays in their physical or mental development. Children may show slight deficits in attention span and learning abilities. Adults who drink this water over many years may develop kidney problems or high blood pressure.*

Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your

home’s plumbing. If you are concerned about elevated lead levels in your home’s water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the USEPA Safe Drinking Water Hotline (800-426-4791).

Water Quality Investments

During 2005, Camp Pendleton spent over \$4.5 million in routine operations and maintenance and invested over \$5 million in capital improvements in the two water systems. General improvements such as replacement of gas chlorination stations, wells, mains and a new iron and manganese removal plant represent part of an ongoing effort to provide the best possible quality of water to Base residents and personnel. Other significant initiatives include:

Northern Water System: Camp Pendleton commissioned a study to determine an appropriate treatment technique to control copper corrosion in the Base’s northern water system. Camp Pendleton will coordinate with the California DHS upon conclusion of this study during 2006 to select and Implement an appropriate treatment technique in order to resolve this water quality concern.

Southern Water System:

- Camp Pendleton constructed a second iron and manganese removal facility to treat water pumped from wells in the Santa Margarita River basin that are not currently processed through the existing treatment facility. This facility became operational during 2005. Upgrades to the existing iron and manganese removal facility were ongoing during 2005. These efforts should greatly improve the aesthetic quality of the water delivered in the Base’s southern water system.
- Camp Pendleton received funds to replace one well in the Santa Margarita River basin that consistently registers detectable levels of 1,2,3-trichloropropane. Camp Pendleton has not used this well for its potable water supply since January 2005. Construction of the replacement well is scheduled to begin in 2006.

Perchlorate Sampling

Perchlorate contamination of water supplies has generated significant attention nationwide due to the potential health effects of this unregulated contaminant. (Perchlorate is an inorganic chemical

that is used in the manufacture of rocket fuels and propellants, explosives and fireworks, road flares, matches, dyes, vehicle airbags, rubber, paints, household bleach, and certain imported fertilizers.) Perchlorate has never been detected in any Camp Pendleton drinking water wells since quarterly sampling began in January 2003. Although activities normally associated with perchlorate contamination are not typical of those that occur on Base, Camp Pendleton will continue to sample for perchlorate as a protective measure.

Help Conserve Your Water Resources

Camp Pendleton relies on perishable groundwater resources to provide water for Base residents and personnel. Despite the heavy precipitation in 2004 and corresponding improvement in our water table, our water resources are finite in supply and vulnerable to wasteful water-use activities. In order to help conserve water, specific watering times for landscapes and lawns are established in Base Order 1130.2J. Residents are reminded that watering of landscaped areas must occur during evening and early morning hours (after 1700 and before 0900) and shall not exceed 20 minutes, three times per week. For more information about water conservation call the Office of Water Resources at 763-1969.

Help Protect Your Water Source

Because Camp Pendleton’s groundwater basins are located within areas where we live and work, our activities can contribute to contamination of our groundwater supplies through the Base’s storm drain system. Below are some simple ways residents can help to keep the environment clean and protect Camp Pendleton’s valuable drinking water resources.

- Check your car for leaks.
- Wash your car on the grass or take your car to the carwash instead of washing it in the driveway.
- Pick up after your pet.
- Use lawn and garden fertilizers sparingly.
- Sweep driveways and sidewalks instead of hosing them off.
- Never dump anything down storm drains.

Please be aware that Camp Pendleton's storm drains are *not* connected to any of the Base's wastewater treatment plants. All water runoff from storm events flows via storm drains directly to our streams, rivers, lakes, and ultimately the Pacific Ocean, picking up surface contaminants along the way. These contaminants can harm aquatic life and can impact the beneficial uses of our surface water resources; they can also percolate through the ground and impair the quality of our groundwater resources. For more information about storm water management, or to report illegal discharges into the storm drain system, call the AC/S Environmental Security Storm Water Branch at (760) 725-9760.

**Disposal of Household Hazardous Waste**

The Family Housing Office provides a free program for disposal of household hazardous waste. This program provides Base residents with a convenient, safe and environmentally friendly way to dispose of household hazardous waste.

**Terms Used in This Report**

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency.

Public Health Goal (PHG): The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

Maximum Residual Disinfectant Level (MRDL): The level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a disinfectant added for water treatment below which there is no known or expected risk to health. MRDLGs are set by the U.S. Environmental Protection Agency.

Primary Drinking Water Standard (PDWS): MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

Secondary Drinking Water Standards or SDWS: MCLs for constituents in drinking water that may adversely affect the taste, odor or appearance of the water.

Regulatory Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

Notification Levels: Health-based advisory levels established by the California DHS for chemicals in drinking water that lack MCLs. When chemicals are found at concentrations greater than their notification levels, certain regulatory requirements and recommendations apply.

Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.

Never discard unwanted quantities of hazardous waste into the trash as this may injure sanitation workers and contaminate the environment. Similarly, never pour household hazardous waste liquids down your sink drain, as this also provides a convenient way for such wastes to enter the environment. If you have questions or need information on household hazardous waste drop off points, call the Family Housing Self Help Office at (760) 763-4402.

**Community Council Meetings**

Camp Pendleton hosts quarterly Community Council meetings and welcomes public participation at these events. You can address drinking water quality concerns at these venues in person or alternatively through your local housing area representative. For information about meeting locations, dates and times, contact the Base Housing Customer Relations Manager at (760) 725-0891.

**Educational Information About Drinking Water Contaminants**

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land, or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or human activity.

Contaminants that may be present in source water include:

- *Microbial contaminants*, such as viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- *Inorganic contaminants*, such as salts and metals, that can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- *Pesticides and herbicides*, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.
- *Organic chemical contaminants*, including synthetic and volatile organic chemicals that are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, agricultural application and septic systems.
- *Radioactive contaminants*, which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (USEPA) and the State Department of Health Services (Department) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Department regulations also establish limits for contaminants in bottled water that must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline (1-800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons, such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice from their health care providers about drinking water. USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

This report is available online at: <http://www.pendleton.usmc.mil/base/environmental>. For questions or additional information regarding this report, please contact the Facilities Maintenance Department at (760) 725-0602 or the AC/S Environmental Security Drinking Water Branch at (760) 725-9741.

Additional Water Quality Information Sources:

California Department of Health Services Division of Drinking Water and Environmental Management	<a href="http://www.dhs.ca.gov/ps/ddwem">www.dhs.ca.gov/ps/ddwem</a> (213) 580-5723
California Office of Environmental Health Hazard Assessment Water Toxicology Unit	<a href="http://www.oehha.ca.gov/water.html">www.oehha.ca.gov/water.html</a> (510) 622-3168
U.S Environmental Protection Agency Office of Groundwater and Drinking Water USEPA Safe Drinking Water Hotline	<a href="http://www.EPA.gov/safewater/">www.EPA.gov/safewater/</a> (202) 564-3750 1-800-426-4791





2005 Water Quality Monitoring Results

Primary Drinking Water Standards - Inorganics (Health Related Standards)									
PARAMETER	Units	MCL (AL)	PHG (MCLG)	DLR	NORTH SYSTEM		SOUTH SYSTEM		Typical Source
					Average	Range	Average	Range	
Arsenic	ppb	50	0.004	2	ND	ND-2.32	ND	ND-2.56	Erosion of natural deposits
Barium	ppm	1	2	0.1	ND	ND	ND	ND-0.158	Erosion of natural deposits
Fluoride	ppm	2.0	1	0.1	0.43	ND-0.78	0.51	ND-2.54 (a)	Erosion of natural deposits
Nitrate as N03	ppm	45	45	2	10.86	ND-30.5	2.36	ND-8.4	Fertilizer runoff and leaching;sewage;natural erosion
Primary Drinking Water Standards (Radionuclides (Health Related Standards)									
PARAMETER	Units	MCL	PHG (MCLG)	DLR	NORTH SYSTEM		SOUTH SYSTEM		Typical Source
					Average	Range	Average	Range	
Combined Radium 226 + 228	pCi/L	5	(0)	N/A	0.30	ND-2.57	ND	ND-3.06	Erosion of natural deposits
Gross Alpha particle activity	pCi/L	15	(0)	3	3.2	ND-15.6(b)	5.3	ND-17.2(b)	Erosion of natural deposits
Gross Beta	pCi/L	50	(0)	4	ND	ND-4.63	ND	ND-6.54	Decay of natural and man-made deposits
Tritium	pCi/L	20,000	N/A	1,000	ND	ND	ND	ND-1447	Decay of natural and man-made deposits
Uranium	pCi/L	20	0.43	2	ND	ND-5.66	3.48	ND-13.6	Erosion of natural deposits
Secondary Drinking Water Standards and other Parameters (Aesthetic Standards)									
PARAMETER	Units	SMCL	PHG (MCLG)	DLR	NORTH SYSTEM		SOUTH SYSTEM		Typical Source
					Average	Range	Average	Range	
Specific Conductance	µmhos/cm	1600	N/A	N/A	828	728-971	1229	1030-1450	Substances that form ions in water; seawater influence
Odor--Threshold	Tons	3	N/A	1	ND	ND	ND	ND-1	Naturally-occurring organic materials
Foaming Agents (MBAS)	ppb	500	N/A	N/A	ND	ND	2	ND-91	Municipal and industrial waste discharges
Zinc	ppb	5000	N/A	N/A	ND	ND	ND	ND-228	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids	ppm	1000	N/A	N/A	536	466-675	746	610-1260(c)	Runoff/leaching from natural deposits
Chloride	ppm	600	N/A	N/A	78	69.5 - 96	166	125-430	Runoff/leaching from natural deposits
Aggressive Index (Corrosivity)	N/A	Non-corrosive	N/A	N/A	11.7	11.2-12.1	12.1	11.4-12.6	Elemental balance in water, affected by temperature and other factors
Sulfate	ppm	500	N/A	0.5	81	ND-172	133	ND-500	Runoff or leaching from natural deposits
Unregulated Chemicals (State UCMR)									
PARAMETER	Units	NL	PHG (MCLG)	DLR	NORTH SYSTEM		SOUTH SYSTEM		Typical Source
					Average	Range	Average	Range	
Boron	ppb	1000	N/A	100	159	125-218	185	101-240	Runoff/leaching from natural deposits; industrial wastes
Hexavalent Chromium	ppb	N/A	N/A	1	ND	ND	ND	ND-2.5	Industrial waste discharge
1,2,3-Trichloropropane	ppt	5	N/A	5	ND	ND	ND	ND-66(d)	Industrial waste discharge and pesticide uses
Vanadium	ppb	50	N/A	3	ND	ND-7	5.59	ND-14	Naturally-occurring; industrial waste discharge
Acid Extractable Organic Chemical									
PARAMETER	Units	MCL	PHG (MCLG)	DLR	NORTH SYSTEM		SOUTH SYSTEM		Typical Source
					Average	Range	Average	Range	
Pentachlorophenol	ppb	1	0.4	0.2	ND	ND	ND	ND-0.67	Discharge from insecticidal/herbicidal uses
Other Parameters									
PARAMETER	Units	AL	PHG (MCLG)	DLR	NORTH SYSTEM		SOUTH SYSTEM		Typical Source
					Average	Range	Average	Range	
Sodium	ppm	N/A	N/A	N/A	71	63.5 - 83	124	82-163	Erosion of natural deposits
Hardness	ppm	N/A	N/A	N/A	261	240-317	364	270-471	Erosion of natural deposits
Microbiological - Primary Standards (Health Related Standards)									
PARAMETER	Units	MCL	PHG (MCLG)	DLR	NORTH SYSTEM		SOUTH SYSTEM		Typical Source
					Detects	Violations	Detects	Violations	
Fecal Coliform or E.coli.	N/A	(e)		N/A	0	0	0	0	Human and animal fecal waste
Total Coliform Bacteria	N/A	(f)		N/A	1	0	2(g)	0	Naturally present in the environment
Metals - Lead and Copper (Health Related Standards)									
PARAMETER	Units	AL	PHG (MCLG)	DLR	NORTH SYSTEM (h)		SOUTH SYSTEM (i)		Typical Source
					90th percentile	# sites over AL	90th percentile	# sites over AL	
Copper	ppm	1.3	0.17	0.05	1.33 (h)	6	1.02	3	Internal corrosion of household plumbing systems
Lead	ppb	15	2	5	6	1	30.4 (h)	11	Internal corrosion of household plumbing systems
Secondary Drinking Water Standards (Aesthetic Standards)									
PARAMETER	Units	AL	PHG (MCLG)	DLR	NORTH SYSTEM		SOUTH SYSTEM		Typical Source
					Average	Range	Average	Range	
Color	Color Units	15	N/A	N/A	N/A	N/A	ND	ND-14	Naturally occurring organic material
Iron	ppb	300	N/A	100	N/A	N/A	17	ND-298	Leaching from natural deposits, industrial wastes
Manganese	ppb	50	N/A	20	N/A	N/A	6.6	ND-90.7(i)	Leaching from natural deposits
Turbidity	NTU	5	N/A	0.1	N/A	N/A	ND	ND-2.66	High concentrations of disolved minerals.
Disinfection By-Products, Disinfectant Residuals and Disinfection Byproduct Precursors (Federal Rule)									
PARAMETER	Units	MCL	PHG (MCLG)	DLR	NORTH SYSTEM		SOUTH SYSTEM		Typical Source
					Average (j)	Range (j)	Average (j)	Range (j)	
Haloacetic Acids	ppb	60	N/A	N/A	6.2	2-18	10	1.0-33	By-product of drinking water chlorination
Total Chlorine Residuals	ppm	4	4	N/A	0.96	0.73-1.45	0.89	0.55-1.29	Drinking water disinfectant added for treatment
Total Trihalomethanes	ppb	80	N/A	0.5	32.3	12-92 (j)	53.3	5.8-130 (j)	By-product of drinking water chlorination

The tables in this report are of samples taken either at the source or after treatment and in the distribution system. We sample the distribution system to look for any changes in the water quality that may indicate excessive water age, contamination or excessive corrosivity of the water. The distribution system samples represent samples that were taken weekly (Microbiological, Physical and Disinfection Residuals), quarterly (Disinfection By-Products) or semi-annually (Metals).

Footnotes:

(a) One sample out of 46 exceeded the MCL.

(b) Gross alpha monitoring results are used for two purposes: To determine compliance with the gross alpha MCL and to screen for radium. Although four out of 66 samples exceeded the MCL for gross alpha, all required follow-on quarterly radionuclide tests had concentration levels well under the regulatory MCLs.

(c) Wells in the southern system have higher concentrations of naturally occurring minerals like iron and manganese (I&M), which also accounts for the higher value of total dissolved solids. Water from some wells in the Santa Margarita River Basin are processed through one of two I&M removal facilities to reduce the concentration of these naturally-occurring substances from the source water.

(d) 1,2,3-Trichloropropane was detected in one out of the 15 wells located in the southern system. Camp Pendleton has not used this well for its potable water supply since January 2005. Samples were taken at the well to monitor the occurrence and level of this contaminant.

(e) MCL for fecal coliform is exceeded when a routine sample and a repeat sample are total coliform positive, and one of these is also fecal coliform or E. coli positive.

(f) MCL for total coliform in the southern system: more than 5% of monthly samples are positive. MCL for total coliform in the northern system: more than one positive monthly sample.

(g) The northern and southern drinking water systems were in compliance in 2005. Only three distribution samples tested positive for total coliform bacteria in 2005. The distribution system at those locations were immediately taken out of service, super chlorinated, flushed, and resampled. The resample results were negative and the distribution system was returned to service.

(h) 11 sites out of 60 sampled exceeded the lead regulatory AL in the southern system. Lead and copper compliance is based on the 90<sup>th</sup> percentile of the test results being below the AL. Samples were taken from customer taps in accordance with DHS requirements. A lead and copper corrosion control program was underway during 2005 to evaluate methods of reducing the levels of lead in the southern and northern drinking water systems.

(i) 29 sites in the southern water system are sampled on a monthly basis for iron, manganese color or turbidity. If the MCL for any of these parameters are exceeded, the site is immediately flushed and resampled.

(j) MCL compliance for Total Trihalomethanes (TTHMs), Haloacetic Acids (HAA5) and Total Chlorine Residuals (MRDL) is based on the Running Annual Average of four consecutive quarterly samples. The northern and southern systems were below the MCL for TTHM, HAA5, and MRDL.

Abbreviations:

MCL = Maximum Contaminant Level

SMCL = Secondary Maximum Contaminant Level

AL = Action Level for Public Notification

PHG = Public Health Goals

MRDL = Maximum Residual Disinfection Level

MCLG = Maximum Contaminant Level Goal

DLR = Detection Level for the Purposes of Reporting

ND = None Detected

NL = Notification Level

N/A = Not Applicable

ppm = parts per million = milligrams per liter (mg/L)

ppb = parts per billion = micrograms per liter (µg/L)

ppt = parts per trillion = nanograms per liter (ng/L)

NTU = Nephelometric Turbidity Units

pCi/L = picoCuries per liter

µmho/cm = micromho per centimeter

